WHAT IS CLAIMED IS:

1. A chemical-mechanical polishing system comprising:
   (a) an abrasive,
   (b) a liquid carrier, and
   (c) a positively charged polyelectrolyte with a molecular weight of about 15,000 or more,

wherein the abrasive is colloidally stable and comprises particles that are electrostatically associated with the positively charged polyelectrolyte.

2. The chemical-mechanical polishing system of claim 1, wherein the abrasive has a zeta potential that is more positive than the zeta potential of the particles that are electrostatically associated with the positively charged polyelectrolyte.

3. The chemical-mechanical polishing system of claim 2, wherein the zeta potential of the particles that are electrostatically associated with the positively charged polyelectrolyte is negative.

4. The chemical-mechanical polishing system of claim 3, wherein the particles having a negative zeta potential, that are electrostatically associated with the positively charged polyelectrolyte, are obtained by treating a particle having a positive zeta potential with a charge-reversing agent.

5. The chemical-mechanical polishing system of claim 4, wherein the charge-reversing agent is an inorganic acid, an organic acid, or a salt thereof.

6. The chemical-mechanical polishing system of claim 1, wherein the abrasive comprises particles selected from the group consisting of silica, alumina, titania, zirconia, ceria, germania, magnesia, silicon nitride, silicon carbide, boron carbide, titanium carbide, titanium diboride, tungsten carbide, diamond, co-formed products thereof, and combinations thereof.

7. The chemical-mechanical polishing system of claim 6, wherein the particles are silica or alumina.

8. The chemical-mechanical polishing system of claim 1, wherein the positively charged polyelectrolyte has a molecular weight of about 5,000,000 or less.

9. The chemical-mechanical polishing system of claim 1, wherein the positively charged polyelectrolyte is a polymer or surfactant comprising positively charged functional groups.

10. The chemical-mechanical polishing system of claim 9, wherein the positively charged polyelectrolyte further comprises repeating units comprising functional groups selected from the group consisting of alcohols, phosphonic acids, phosphonates, sulfates, sulfonic acids, sulfonates, phosphates, carboxylic acids, carboxylates, and mixtures thereof.

11. The chemical-mechanical polishing system of claim 9, wherein the positively charged polyelectrolyte further comprises repeating units selected from the group consisting of ethylene oxide, propylene oxide, vinyl acetate, and mixtures thereof.

12. The chemical-mechanical polishing system of claim 9, wherein the positively charged polyelectrolyte is a polymer or surfactant containing one or more repeating units comprising functional groups selected from the group consisting of amines, amides, imides, imines, alkylamines, aminoalcohols, and mixtures thereof.

13. The chemical-mechanical polishing system of claim 12, wherein the positively charged polyelectrolyte is selected from the group consisting of polyethylenimines, polyaminoamides, poly(diallyldimethylammonium chloride), poly(dimethylamine-*co*-epichlorohydrin), poly(methacryloyloxyethyltrimethylammonium chloride), poly(methacryloyloxyethyldimethylbenzylammonium chloride, poly(vinylpyrrolidone), poly(vinylimidazole), poly(vinylpyridine), poly(vinylamine), and combinations thereof.

14. The chemical-mechanical polishing system of claim 12, wherein the positively charged polyelectrolyte is a siloxane polymer or copolymer containing pendant amine groups.

15. The chemical-mechanical polishing system of claim 9, wherein about 5% or more of all the functional groups of the positively charged polyelectrolyte are positively charged.

16. The chemical-mechanical polishing system of claim 1, wherein the system further comprises one or more components selected from the group consisting of oxidizers, complexing agents, and corrosion inhibitors.

17. The chemical-mechanical polishing system of claim 1, wherein the system further comprises a polishing pad.

18. A method of polishing a substrate comprising contacting a substrate with the chemical-mechanical polishing system of claim 1 and abrading at least a portion of the substrate to polish the substrate.

19. The method of claim 18, wherein the substrate comprises a metallic layer and/or an insulating layer.

20. The method of claim 19, wherein the metallic layer comprises copper, tungsten, titanium, aluminum, tantalum, platinum, ruthenium, rhodium, iridium, nickel, iron, or cobalt.

21. The method of claim 19, wherein the insulating layer comprises silicon oxide, silicon nitride, silicon oxynitride, silicon carbide, aluminum oxide, or a material with a dielectric constant of about 3.5 or less.

22. A chemical-mechanical polishing system comprising:

(a) an abrasive,

(b) a liquid carrier, and

(c) a positively charged polyelectrolyte with a molecular weight of about 15,000 or more and about 2,000,000 or less,

wherein the abrasive comprises particles that are electrostatically associated with the positively charged polyelectrolyte.

23. The chemical-mechanical polishing system of claim 22, wherein the abrasive has a zeta potential that is more positive than the zeta potential of the particles that are electrostatically associated with the positively charged polyelectrolyte.

24. The chemical-mechanical polishing system of claim 22, wherein the particles that are electrostatically associated with the positively charged polyelectrolyte have a

negative zeta potential and are obtained by treating a particle having a positive zeta potential with a charge-reversing agent.

25. The chemical-mechanical polishing system of claim 22, wherein the particles are silica or alumina.

26. The chemical-mechanical polishing system of claim 22, wherein the positively charged polyelectrolyte is a polymer or surfactant comprising positively charged functional groups.

27. The chemical-mechanical polishing system of claim 26, wherein the positively charged polyelectrolyte further comprises repeating units comprising functional groups selected from the group consisting of alcohols, phosphonic acids, phosphonates, sulfates, sulfonic acids, sulfonates, phosphates, carboxylic acids, carboxylates, and mixtures thereof.

28. The chemical-mechanical polishing system of claim 26, wherein the positively charged polyelectrolyte further comprises repeating units selected from the group consisting of ethylene oxide, propylene oxide, vinyl acetate, and mixtures thereof.

29. The chemical-mechanical polishing system of claim 26, wherein the positively charged polyelectrolyte is a polymer or surfactant containing one or more repeating units comprising functional groups selected from the group consisting of amines, amides, imides, imines, alkylamines, aminoalcohols, and mixtures thereof.

30. The chemical-mechanical polishing system of claim 29, wherein the positively charged polyelectrolyte is selected from the group consisting of polyethylenimines, polyaminoamides, poly(diallyldimethylammonium chloride), poly(dimethylamine-*co*-epichlorohydrin), poly(methacryloyloxyethyltrimethylammonium chloride), poly(methacryloyloxyethyldimethylbenzylammonium chloride, poly(vinylpyrrolidone), poly(vinylimidazole), poly(vinylpyridine), poly(vinylamine), siloxane polymer or copolymer containing pendant amine groups.and combinations thereof.

31. The chemical-mechanical polishing system of claim 26, wherein about 5% or more of all the functional groups of the positively charged polyelectrolyte are positively charged.

32. A method of polishing a substrate comprising contacting a substrate with the chemical-mechanical polishing system of claim 22 and abrading at least a portion of the substrate to polish the substrate.

33. The method of claim 32, wherein the substrate comprises a metallic layer comprising copper, tungsten, titanium, aluminum, tantalum, platinum, ruthenium, rhodium, iridium, nickel, iron, or cobalt.

34. The method of claim 32, wherein the substrate comprises an insulating layer comprising silicon oxide, silicon nitride, silicon oxynitride, silicon carbide, aluminum oxide, or a material with a dielectric constant of about 3.5 or less.